

FUEL INJECTION VALVE

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ABSTRACT OF THE DISCLOSURE

10 There is provided a fuel injection valve in which
nozzle holes are formed on a metering plate and fuel
flowing on a face of the metering plate on the upstream
side is injected outside of a face of the metering plate
on the downstream side through the nozzle holes. The
fuel injection valve includes a vortex flow generator
means for changing a flow of fuel passing in each nozzle
15 hole into a vortex flow, wherein the vortex flow
generator means is provided on the upstream side of the
metering plate. The vortex flow means is a vortex flow
generator groove provided on an upper face of the
metering plate and connected with a wall face of an
20 entrance of the nozzle hole, and a main stream of fuel
flowing in the groove is directed to a position shifted
from the center of the nozzle hole. Alternatively, the
vortex flow means is a protrusion formed on an upper face
of the metering plate. A flow of fuel is changed into a
25 vortex flow in the nozzle hole and injected from the
nozzle hole. Therefore, fuel can be excellently atomized
and diffused as a megaphone-shape without being formed
into a liquid column spray.